

REMARKS

Reconsideration of this Application is respectfully requested.

Applicants note with thanks the Examiner's entry of the Amendment filed on August 3, 2004. Following entry of that Amendment, claims 9 and 12-16 are pending in the application. Applicants further note with thanks the Examiner's indication that claims 12-16 are allowable. Applicants also thank the Examiner for withdrawal of the rejection of claim 9 under 35 U.S.C. § 102(b) as being anticipated by Hsiao, et al.

Claim Rejections

The Examiner has rejected claim 9 under 35 U.S.C. § 102(b) as anticipated by Nakanishi, *et al.* (U.S. Pat. No. 4,657,860). Applicants respectfully traverse. For a reference to anticipate a claim, the reference must include, either expressly or inherently, all of the limitations of the claim. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), *quoted in* M.P.E.P. § 2131.

Nakanishi, *et al.* does not report an invention identical to that of claim 9. Claim 9 claims, "An isolated *Corynebacterium* strain, wherein said strain produces at least about 10 g/l of L-lysine in 24 hours when grown in a bacterial culture medium containing at least about 1% raffinose."

The Office Action cites Nakanishi's report of L-lysine production in Example 2 and Table 2. Neither Example 2 nor Table 2 of Nakanishi, *et al.* reports a *Corynebacterium* strain that produces at least about 10 grams per liter of L-lysine in 24 hours when grown in a bacterial

culture medium containing at least 1% raffinose. To the contrary, although the strain reported in Example 2 was initially inoculated in a seed medium for 24 hours, the L-lysine production values reported in Table 2 followed culture of the bacteria, with stirring, at 30° C for 3 days. The reported process in Example 2 and values in Table 2 therefore give no indication of the amount of L-lysine reportedly produced by the strain of Nakanishi, *et al.* in a 24-hour period. Nakanishi, *et al.* does not anticipate claim 9 of the instant application because it does not teach the elements of claim 9. Although Nakanishi, *et al.* does indicate use of a 24-hour period for inoculation, there are no reported results for L-lysine fermentation production in that 24-hour inoculation period. The rejection of claim 9 based on 35 U.S.C. § 102(b) should therefore be removed and the claim allowed.

The Examiner has also rejected claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Hsiao, *et al.* in view of Nakanishi, *et al.* The Office Action acknowledges "Hsiao's *Corynebacterium* strain does not appear to produce at least 10 grams of L-lysine in 24 hours," but states that a "*Corynebacterium* strain which produced as high as about 34 to 36 grams per liters of L-lysine in 24 hours was already known in the art at the time of the invention." Nakanishi, *et al.* is cited for this proposition. However, as established in discussion of the rejection under 35 U.S.C. § 102(b), Nakanishi does not stand for the cited proposition. Therefore, applicants submit that the Office Action has not set forth a prima facie case of obviousness as is required for a rejection under 35 U.S.C. § 103(a). Applicants therefore respectfully submit that the rejection of claim 9 as being unpatentable over Hsiao, *et al.* in view of Nakanishi, *et al.* should be withdrawn and the claim allowed.

CHANGE OF CORRESPONDENCE ADDRESS

Applicants respectfully request that the change of correspondence address and change of Power of Attorney filed on May 6, 2004, and attached hereto, be recognized in this case. The correct address for correspondence is

Craig G. Cochenour, Esq.  
Buchanan Ingersoll PC  
One Oxford Centre, 20th Floor  
301 Grant Street  
Pittsburgh, PA 15219

A copy of the Power of Attorney documents, transmittal forms and return receipt postcard stamped with the May 6, 2004, date of receipt by the USPTO are attached. Additionally, the Examiner has asked to kindly take note of the new reference number for this case, 031008.

CONCLUSION

All of the stated grounds of rejection have been traversed. Applicants therefore respectfully request that the Examiner reconsider and withdraw the outstanding rejection and allow all pending claims. Applicants believe that a full and complete reply has been made to the outstanding Office Action and as such, the present Application is in condition for allowance. If the Examiner believes for any reason that personal communication will expedite prosecution of this Application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

A handwritten signature in black ink, reading "Duane A. Stewart III". The signature is fluid and cursive, with a large, stylized "D" and "S".

Dated: January 20, 2005

Duane A. Stewart III  
Registration No. 54,468  
BUCHANAN INGERSOLL PC  
One Oxford Centre  
301 Grant Street  
Pittsburgh, Pennsylvania 15219  
ph: (412) 562-1622  
fx: (412) 562-1041



EXHIBITS

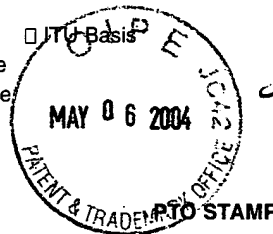
Serial No.: 09/630,454 Filing Date: 8/2/2000 BIPC File No.: 031008

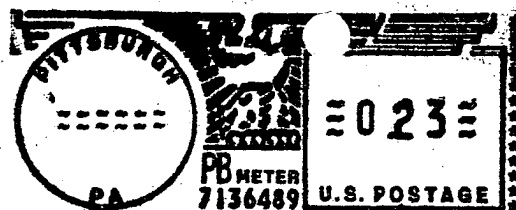
Title: Novel Bacterial Strains, Methods of Preparing the Same...

Applicant: S: Liaw, et al. Date: May 6, 2004

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**Buchanan Ingersoll**

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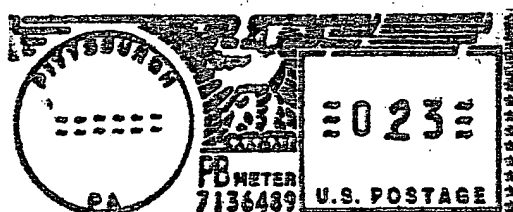
One Oxford Centre  
301 Grant Street, 20th Floor  
Pittsburgh, PA 15219-1410



Serial No.: 09/630,454 Filing Date: 8/2/2000 BIPC File No.: 031008  
Title: Novel Bacterial Strains, Methods of Preparing the Same...  
Applicant: S: Liaw, et al. Date: May 6, 2004

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| Atty/Secy <u>DASIII/ep</u>  |   |                                    |



**Buchanan Ingersoll**  
ATTORNEYS  
One Oxford Centre  
301 Grant Street, 20th Floor  
Pittsburgh, PA 15219-1410





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FROM: (PLEASE PRINT) PHONE (412) 262 8663  
Duane A. Stewart III, Esq.  
BUCHANAN INDEPENDENCE PC  
301 GRANT ST FL 20  
1 OXFORD CENTRE  
PITTSBURGH PA 15219-1410

TO: (PLEASE PRINT) PHONE ( )  
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ATTORNEY'S DOCKET NO.

031008

IN RE APPLICATION OF:

Liaw, et al.

Serial No.:

09/630,454

Filing Date:

August 2, 2000

Title:

Novel Bacterial Strains, Methods of Preparing the Same and Use  
Thereof in Fermentation Processes for L-Lysine Production

Group Art Unit

1645

Examiner

Devi, Sarvamangala JN

Express Mail mailing label number: EV 369816278 US

Date of Deposit: May 6, 2004

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Ellie Pingree

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# Buchanan Ingersoll PC

ATTORNEYS

One Oxford Centre  
301 Grant Street, 20th Floor  
Pittsburgh, PA 15219-1410

T 412 562 8800  
F 412 562 1041

www.buchananingersoll.com

Duane A. Stewart III  
562 1622  
dstewartda@bipc.com

May 6, 2004

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Re: U.S. Utility Patent Application No.: 09/630,454  
Filed: August 2, 2000  
Title: Novel Bacterial Strains, Methods of Preparing the Same and  
Use Thereof in Fermentation Processes for L-Lysine Production  
Inventors: Liaw, et al.  
Attorney Reference No.: 031008

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Amendment and Reply to Final Office Action under 37 C.F.R. § 1.116;
2. Certificate of Mailing (Express Mail);
3. 1 (one) return postcard;
4. Form PTO/SB/81, "Power of Attorney and Correspondence Address Indication Form";
5. Form PTO/SB/82, "Revocation of Power of Attorney with New Power of Attorney and Change of Correspondence Address"; and
6. Form PTO/SB/96, "Statement Under 37 C.F.R. 3.73(b)" (2 copies with assignments).

It is respectfully requested that the attached postcard be stamped with the date of filing these documents and that it be returned. In the event that extensions of time are necessary to prevent abandonment of this Patent Application, then such extensions of time are hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency or credit any overpayment to our Deposit Account No. 02-4553. A duplicate copy of this letter is enclosed for that purpose.

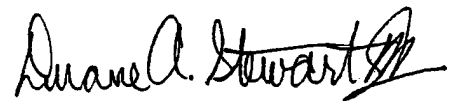
May 5, 2004  
Page - 2 -

Additionally, please note the **change of address** to which correspondence is directed in this case:

Craig G. Cochenour, Esq.  
One Oxford Centre  
301 Grant Street, 20th Floor  
Pittsburgh, PA 15219-1410

The Examiner is asked to kindly take note of the new attorney reference number in this case, 031008.

Very truly yours,

A handwritten signature in black ink, appearing to read "Duane A. Stewart III", with a stylized flourish at the end.

Duane A. Stewart III  
Attorney at Law  
Reg. No. 54,468

DASIII/emp

Enclosures

BIO.4.US01

PTO/SB/82 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**REVOCATION OF POWER OF  
ATTORNEY WITH  
NEW POWER OF ATTORNEY  
AND  
CHANGE OF CORRESPONDENCE ADDRESS**

Application Number	09/630,454
Filing Date	August 2, 2000
First Named Inventor	Hungming J. Liaw
Art Unit	1645
Examiner Name	Devi, Sarvamangala JN
Attorney Docket Number	031008

I hereby revoke all previous powers of attorney given in the above-identified application.

☒ A Power of Attorney is submitted herewith.

OR

☐ I hereby appoint the practitioners associated with the Customer Number:

☒ Please change the correspondence address for the above-identified application to:

☐ The address associated with  
Customer Number:

OR

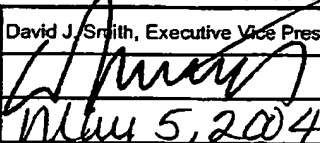
<input checked="" type="checkbox"/> Firm or Individual Name	Craig G. Cochenour, Esq.			
Address	Buchanan Ingersoll PC			
Address	One Oxford Centre, 301 Grant Street, 20th Floor			
City	Pittsburgh	State	PA	Zip 15219
Country	US			
Telephone	412-562-3978	Fax	412-562-1041	

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

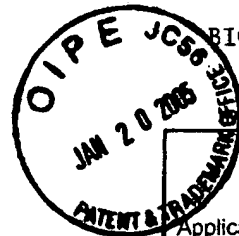
Name	David J. Smith, Executive Vice President, Secretary and General Counsel Archer-Daniels-Midland Company		
Signature			
Date	May 5, 2004	Telephone	(217) 424-5200

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Liaw, Eddington, Yang, Dancey, Swisher, and Mao

Application No./Patent No.: 09/630,454 Filed/Issue Date: Filed August 2, 2000

Entitled: Novel Bacterial Strains, Methods of Preparing the Same and Use Thereof in Fermentation Processes for L-Lysine Production

Archer-Daniels-Midland Company, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 013777, Frame 0629, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.

(NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

May 5, 2004  
Date

217-424-5200

Telephone number

David J. Smith

Typed or printed name

[Signature]

Signature

Executive Vice President, Secretary  
and General Counsel, Archer-Daniels-  
Title Midland Company

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## ASSIGNMENT OF A PROVISIONAL APPLICATION FOR PATENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Hungming J. Liaw, John Eddington, Yueqin Yang, Richard Dancey, Stacia Swisher and Weiyang Mao, the undersigned hereby sells and assigns to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for and collect for all past, present and future damages,

check applicable box(es)

- ☒ for the United States of America (as defined in 35 U.S.C. § 100),
- ☒ and throughout the world,

(a) in the invention(s) known as Novel Bacterial Strains, Methods of Preparing the Same and Use Thereof in Fermentation Processes for L-Lysine Production for which a provisional application for patent in the United States of America has been filed on August 2, 1999 (also known as United States Application No. 60/146,350), in any and all non-provisional applications thereon, in any and all Letters Patent(s) granted on such non-provisional applications, and (b) in any and all continuing applications, reissues, extensions, renewals and reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, and (c) in all forms of intellectual and industrial property protection derivable from the above patent application(s), and that are derivable from any and all continuing applications, reissues, extensions, renewals, reexaminations and priority documents of such patent application(s), including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable; such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

The undersigned agree(s) to execute all papers necessary in connection with the provisional application for patent and with any non-provisional continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning any non-provisional continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; and Steven R. Ludwig, Registration No. 36,203, of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: <u>August 20, 1999</u>	Signature of Inventor: <u>Hungming J. Liaw</u>	Hungming J. Liaw
Date: <u>August 24, 1999</u>	Signature of Inventor: <u>John M. Eddington</u>	John Eddington
Date: <u>8/30/99</u>	Signature of Inventor: <u>Yueqin Yang</u>	Yueqin Yang
Date: <u>8/30/99</u>	Signature of Inventor: <u>Richard Dancey</u>	Richard Dancey
Date: <u>8/30/99</u>	Signature of Inventor: <u>Stacia Swisher</u>	Stacia Swisher
Date: <u>8/30-1999</u>	Signature of Inventor: <u>Weiyang Mao</u>	Weiyang Mao

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY  
and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

Application Number	09/630,454
Filing Date	August 2, 2000
First Named Inventor	Hungming J. Liaw
Title	Novel Bacterial Strains...
Art Unit	1645
Examiner Name	Devi, Sarvamangala JN
Attorney Docket Number	031008

I hereby appoint:

☐ Practitioners associated with the Customer Number:

OR

☒ Practitioner(s) named below:

Name	Registration Number
Craig G. Cochenour	33,666
Michael L. Dever	32,216
Bryan H. Opalko	40,751
Duane A. Stewart III	54,468

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☐ The address associated with the above-mentioned Customer Number:

OR

☐ The address associated with Customer Number:

OR

☒ Firm or Individual Name Craig G. Cochenour, Esq.

Address Buchanan Ingersoll PC

Address One Oxford Centre, 301 Grant Street, 20th Floor

City Pittsburgh, State PA Zip 15219

Country US

Telephone 412-562-3978 Fax 412-562-1041

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

Name David J. Smith, Executive Vice President, Secretary and General Counsel, Archer-Daniels-Midland Company

Signature 

Date May 5, 2004 Telephone (217) 424-5200

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



BIO.4.US01

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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Liaw, Eddington, Yang, Dancey, Swisher, and Mao

Application No./Patent No.: 09/630,454 Filed/Issue Date: Filed August 2, 2000

Entitled: Novel Bacterial Strains, Methods of Preparing the Same and Use Thereof in Fermentation Processes for L-Lysine Production

Archer-Daniels-Midland Company, a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. [☒] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 013777, Frame 0629, or for which a copy thereof is attached.

OR

B. [☐] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[☐] Additional documents in the chain of title are listed on a supplemental sheet.

[☒] Copies of assignments or other documents in the chain of title are attached.

(NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

May 5, 2004  
Date

217-424-5200

Telephone number

David J. Smith

Typed or printed name



Signature

Executive Vice President, Secretary  
and General Counsel, Archer-Daniels-  
Title Midland Company

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## ASSIGNMENT OF A PROVISIONAL APPLICATION FOR PATENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned: Hungming J. Liaw, John Eddington, Yueqin Yang, Richard Dancey, Stacia Swisher and Weiyang Mao, the undersigned hereby sells and assigns to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for and collect for all past, present and future damages,

check applicable box(es)

- ☒ for the United States of America (as defined in 35 U.S.C. § 100),
- ☒ and throughout the world,

(a) in the invention(s) known as Novel Bacterial Strains, Methods of Preparing the Same and Use Thereof in Fermentation Processes for L-Lysine Production for which a provisional application for patent in the United States of America has been filed on August 2, 1999 (also known as United States Application No. 60/146,350), in any and all non-provisional applications thereon, in any and all Letters Patent(s) granted on such non-provisional applications, and (b) in any and all continuing applications, reissues, extensions, renewals and reexaminations of such applications or Letters Patent(s) and divisional and continuation applications thereof, to the full end of the term or terms for which such Letters Patent(s) issue, and (c) in all forms of intellectual and industrial property protection derivable from the above patent application(s), and that are derivable from any and all continuing applications, reissues, extensions, renewals, reexaminations and priority documents of such patent application(s), including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable; such entire right, title and interest to be held and enjoyed by the above-named Assignee to the same extent as they would have been held and enjoyed by the undersigned had this assignment and sale not been made.

The undersigned agree(s) to execute all papers necessary in connection with the provisional application for patent and with any non-provisional continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference that may be declared concerning any non-provisional continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

The undersigned hereby represents that the undersigned has full right to convey the entire interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict therewith.

The undersigned hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; and Steven R. Ludwig, Registration No. 36,203, of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: <u>August 30, 1999</u>	Signature of Inventor: <u>Hungming J. Liaw</u>
Date: <u>August 30, 1999</u>	Signature of Inventor: <u>John Eddington</u>
Date: <u>8/30/99</u>	Signature of Inventor: <u>Yueqin Yang</u>
Date: <u>8/30/99</u>	Signature of Inventor: <u>Richard Dancey</u>
Date: <u>8/30/99</u>	Signature of Inventor: <u>Stacia Swisher</u>
Date: <u>8/30/99</u>	Signature of Inventor: <u>Weiyang Mao</u>